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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,818	10/11/2005	Bernhard Gleich	DE 030118	5552
24737 7590 08/03/2009 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER DEJONG, ERIC S				
ART UNIT 1631		PAPER NUMBER		
MAIL DATE 08/03/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/552,818

**Applicant(s)**

GLEICH, BERNHARD

**Examiner**

ERIC S. DEJONG

**Art Unit**

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 09/17/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED OFFICE ACTION**

Applicants response filed 05/01/2009 is acknowledged.

### ***Election/Restrictions***

Applicant's election without traverse of Group I (claims 1-19) in the reply filed on 05/01/2009 is acknowledged.

Claims 20-35 are cancelled. Claims 1-19 are pending and currently under examination.

### ***Information Disclosure Statement***

The information disclosure statements (IDS) submitted on 09/17/2007 is acknowledged. Said IDS has been considered by the examiner and a signed copy of the associated PTO-1449 forms have been included with this Office action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 recites the limitation of an "at least partially coated covered and/or coated magnetic particles having at least one solid, viscous and/or liquid shell or coating" in lines 10 and 11. This causes the metes and bounds of the instant claim to be indefinite because it cannot be determined what magnetic particles, if any, are excluded by the recited limitation. It is unclear from the extremely broad language of "at least partially coated" and "having a solid, viscous or liquid" whether or not applicants intend to encompass any and all naturally occurring spin  $1/2$  nuclei in a solution state. By a plain reading of the claim any molecule comprising a naturally occurring spin  $1/2$  nuclei that is completely surrounded by water would meet the instantly recited limitation.

Further regarding independent claim 1, the phrase "charging the, in particular relative, spatial position" is recited in line 17. The phrases "particularly" and "in particular" as set forth above renders the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For the purpose of prior art considerations, the instant claim has been construed broadly to encompass said limitation following the phrase "particularly" but not exclusively limited there to.

Regarding claims 2-19, each of said dependent claims recite the limitation "characterized in that" in line 1 of said claims. This causes the metes and bounds of the instant claims to be indefinite because a characterization of a method fails to establish what, if any, additional process steps are required to be performed by a practitioner of

the claimed invention. It is further unclear from said dependent claims if the recited "characterized" aspects of a method are directed to of inherent molecular arrangements or other naturally occurring molecular processes that occur in the presence of magnetic fields or, alternatively, result from additional steps performed by the hand of a practitioner. For these reasons, the metes and bounds of claims 2-19 cannot be clearly determined from the instant claims what, if any, of the recited "characterized" methods involve additional process steps so as to further limit the claims from which they depend.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by either of Heldmann et al. or Wasterby et al.

The instant claim is directed to an extremely broad process for evaluating signals that depend on the magnetization in an examination area influenced by changing magnetic field strength over a spatial region of said examination area comprising magnetic particles. The magnetic particles are further limited to agglomerated and/or coupled to one another in pairs or more, particularly covalently, ionically, coordinatively or via hydrogen bridge bonds or Van der Waals bonds. Further said magnetic particles have two states, where a second state is introduced by a magnetic field. In its current form, the claimed process is so broadly constructed that it encompasses any and every NMR and MRI spectroscopic technique that requires the use of spatial magnetic field

gradients applied to spin  $\frac{1}{2}$  nuclei. Such methods broadly include every known MRI imaging techniques, NMR spectroscopic investigations of solution state biological structures, and solid state NMR investigations. Heldmann et al. and Wasterby et al. are relied upon in the instant rejection for demonstrating the application of spatial gradient fields to sample containing spin  $\frac{1}{2}$  nuclei that flip between spin  $\frac{1}{2}$  and spin  $-\frac{1}{2}$  states under the influence of RF-magnetic field pulses as described above and instantly claimed. For these reasons it is maintained that Heldmann et al. and Wasterby et al. fully anticipate the instant claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. DEJONG whose telephone number is (571)272-6099. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC S. DEJONG/  
Primary Examiner, Art Unit 1631